

# Combining Conservation and Care: Promoting Alternative Livelihoods



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# INTRODUCTION

**B**iodiversity hotspots are home to some of the richest variety of flora and fauna in the world, but they are also commonly home to some of the poorest people. To reduce pressure on biodiversity, conservation nongovernmental organizations (NGOs) and partners are exploring different strategies to alleviate poverty, often by integrating alternative livelihood options into their programs. This approach attempts to prevent environmentally destructive practices, such as slash-and-burn agriculture, and to foster more conservation-friendly income-generating activities. The activities of the Population Environment (PE) program of Conservation International (CI) often include alternative livelihood activities in conjunction with natural resource management for improved biodiversity conservation.



*Poverty and lack of knowledge of alternative practices are drivers in biodiversity loss.*

# Threats to Biodiversity

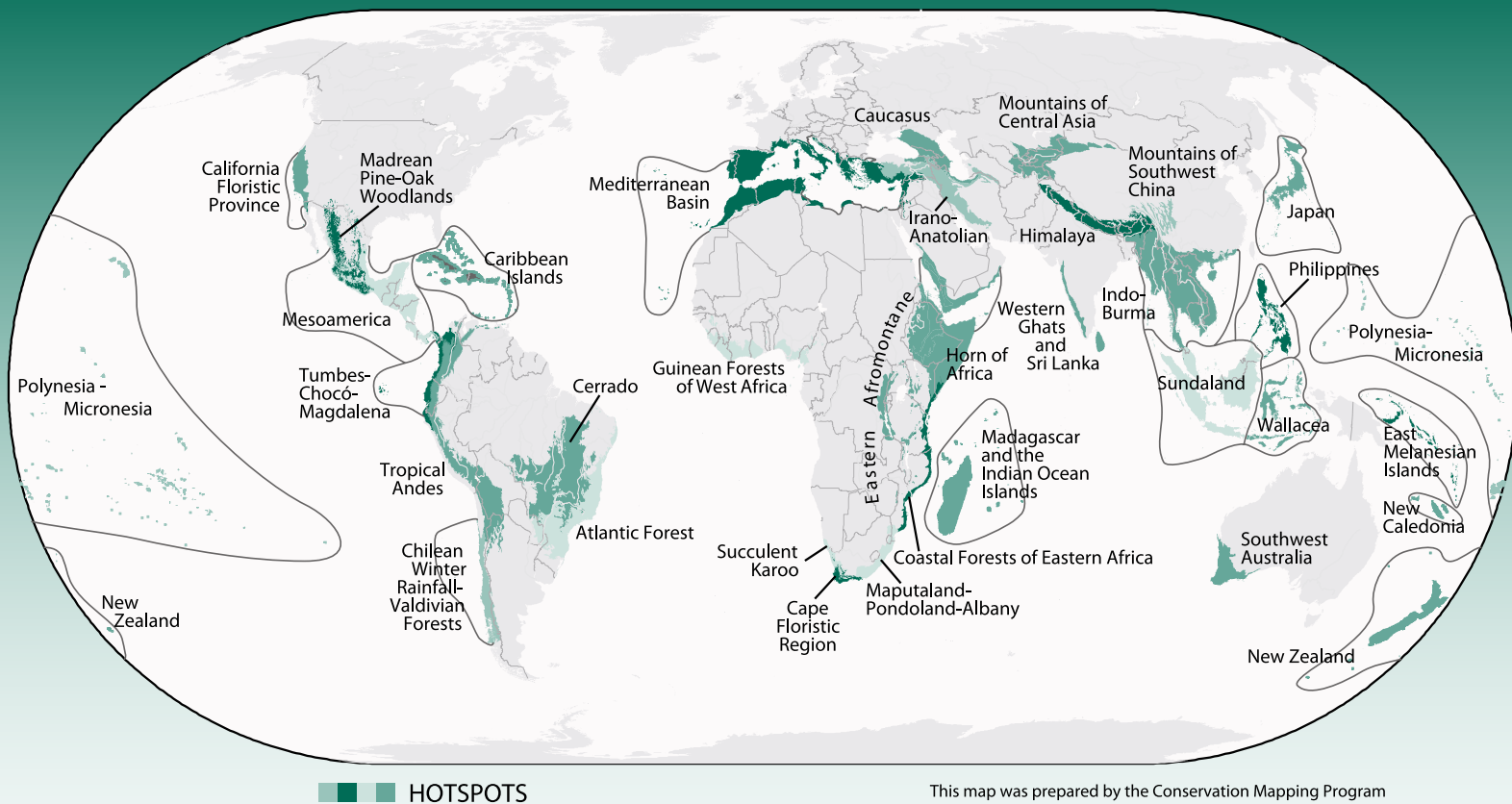


*Livelihood activities vary according to local biodiversity threats and enabling conditions for opportunities for community action.*

CI's mission is to conserve the Earth's living natural heritage, our global biodiversity, and to demonstrate that human societies are able to live harmoniously with nature. CI's approach to conserving biodiversity targets 34 biodiversity hotspots—areas of Earth's biologically richest places, with the highest numbers of species found nowhere else. Hotspots face extreme threats and have already lost at least 70 percent of their original vegetation (CI 2005.) According to a 2004 analysis, the hotspots are home to just under 2 billion people—about one-third of our global population (CEMEX 2004). Many of these inhabitants are poor, live on less than one dollar a day, and directly depend on the products of healthy ecosystems to meet basic human needs such as shelter, food, clothing, and medicine. In addition, they represent considerable resource demand near localities critical to biodiversity conservation (Gorenflo, da Fonseca, and Mittermeier forthcoming).

In our target countries, human population growth rates affect conservation through a series of human-induced pressures on natural resources, such as:

- **In-migration and encroachment of human settlements.** In each country where we work, migrants move into key biodiversity areas because of the need for agricultural expansion, as well as increased pressure and poverty in other more densely populated areas. The people who move to the region often remain dependent on subsistence farming, largely in poverty, with high fertility rates, poor reproductive health, and minimal access to government services. Although logging concessions have been closed in Luzon, the Philippines, since the early 1990s, large numbers of migrants still move to the Sierra Madre Biodiversity Corridor (SMBC) seeking farmland. Home to the Cardamoms Conservation Landscape, Koh Kong province in Cambodia has one of the highest numbers of migrants from other provinces, in part because of perceived opportunities for poaching, illegal logging, and agricultural expansion.
- **Slash-and-burn agriculture.** Loss of habitats because of conversion of forests to agricultural land is a pressing threat to biodiversity worldwide. In Baggao, the Philippines, 88 percent of households practice slash-and-burn agriculture within secondary growth forest. In Madagascar, despite a government ban on the practice, poor rural farmers still burn parcels of land for rice production in order to meet family nutritional needs. In Cambodia, the average rural family does not have enough rice to meet its basic nutritional needs for three to four months out of the year. These economic pressures increase intensification of natural resource exploitation and lead to irreversible soil erosion and species loss.
- **Unsustainable natural resource management practices.** Community residents who lack alternative employment opportunities contribute to destructive environmental prac-



This map was prepared by the Conservation Mapping Program GIS & Mapping Laboratory Center for Applied Biodiversity Science at Conservation International.

Cartography: M.Denil © CI. 2/2005

Map of Hotspots.

tices, such as unregulated hunting of wildlife, overfishing, and timber poaching. Poverty and lack of knowledge of alternative practices are additional drivers in biodiversity

loss. In 40 countries, CI is working with our partners and donors to address this threat by building community and NGO capacity for sustainable resource use, addressing policy issues, and fostering coalitions and networks to improve species, landscape, and corridor outcomes.

## PE LIVELIHOOD RESPONSES

To achieve sustainable biodiversity conservation, PE programs attempt to build local community capacity to improve natural resource management and to foster small-scale income-generating activities. These livelihood activities vary according to local biodiversity threats and local enabling conditions for opportunities for community action. In Chiapas, Mexico, CI included a microenterprise component in its integrated PE project. In Cambodia, community members investigated alternative farming methods and ecotourism possibilities, and the women formed two associations to initiate livelihood activities. In Madagascar, communities explored alternative farming and experimented with other renewable resource-based livelihood options. Finally, in the Philippines, communities initiated three environmentally friendly livelihood projects.



CI Cambodia and partners work with women's associations to promote livelihood strategies.

## Women's Microenterprises in Mexico

- In the Selva Lacandona jungle of Southern Mexico, women in the Ch'ol indigenous community of Frontera Corozal traditionally dedicate their time and lives to the welfare of the family and household. Inhabitants like María live on a subsistence level, and the society is heavily male dominated. When CI established a microenterprise project to promote environmental conservation and economic opportunity, María was among the first women to join—to change her life and take control of her future. The women's group, Nich Ma'te'el, makes and sells embroidery depicting endangered species to visiting tourists. From these sales, they gain economic profit, promote environmental conservation, and have established themselves as an influential part of their community, a precedent in the community.
- For the past five years, CI conducted regular meetings and skills-building workshops on embroidery training, family planning, environmental conservation, and organizational development. The success of these workshops is evident in the exceptional progress of the group. María and the other women have generated enough confidence in their potential to secure a three-year loan to buy sewing machines, thread, and cloth. They secured funds from external donors to build a training center, and they successfully petitioned the US Agency for International Development in Mexico for a grant

to furnish and provide electricity for the center. Finally, as a result of successful negotiations with local authorities and the Chiapas government, they will soon have access to stores from which to sell their wares in a busy tourist zone.

- María's success, along with the other women of Nich Ma'te'el, illustrates the possibilities that arise when common economic interests and environmental responsibility are combined. Now the women are taken seriously in the community and are respected for successfully promoting the conservation of flora and fauna in the region. Their embroidery generates sorely needed income for their families. An unexpected benefit of their success is the opportunity to explore their own culture in more depth. Now that they have the materials and the credibility, the women of Nich Ma'te'el have begun to revive an intricate embroidery method and design that their community has not used since their grandmothers' time. The design is popular with tourists, and the group's success grows as its members preserve their cultural heritage. In addition to their personal achievements, they frequently use their knowledge to provide other women in their community with support for similar ventures and aspirations. As a result of the new training center, the women are assured that their efforts will continue to have a long-term impact for their children.

## Women's Associations

In our PE country programs, CI has examined opportunities for improving income generating activities in the communities in biodiversity hotspots. One of the most common tools is to help form women's associations, because women in more traditional societies do not participate in the formal sector and pursue other opportunities.

In Cambodia, two women's groups created demonstration farm plots and gardens to teach farmers about diversifying crops for nutrition and increasing yields to sell market produce. CI plans to set up a buffalo bank—from which farmers can borrow buffalo to till fields—for the rice season. Rice production itself has been improved through education about integrated pest management and nondestructive farming techniques. In Mexico, two women's groups formed successful artisan microenterprises designed to generate income for their families. (See Box 4.1 for more information about women's microenterprises in Mexico.)

## Alternative Agriculture

In Madagascar, the people traditionally practiced tavy, a destructive method of planting and harvesting rice that involves slash-and-burn deforestation. CI helped train them



CI Philippines promotes conservation-friendly alternatives to illegal logging.

to use more sustainable methods of rice production and also to grow more and different crops such as tomatoes, beans, fruit, and potatoes. These new crops provide more complete nutrition for the families and maintain the integrity of the forests. In addition, the communities have experimented with farming fish, keeping bees and growing foods for market to provide them with income so that they do not have to rely on harmful agriculture for subsistence.

In addition, NGOs and CI work to implement alternative livelihood strategies, such as growing rice with technical improvements, practicing reforestation, and engaging in agricultural activities. The information, education and communication (IEC) component includes village theater sessions in 36 sites about the importance of reforestation in biodiversity conservation. During the past two years, more than 62 village animators were trained in reforestation techniques, and they share this information through informal outreach activities.

In the Philippines, where illegal logging had provided poor families with most of their income, community-planning exercises in six barangays identified three conservation-friendly alternatives—agroforestry, ecotourism, and the collection of nontimber forest products. With the help of CI, community members initiated and currently participate in all three of these livelihood opportunities and now actively oppose and prevent illegal logging in their forests.

### Ecotourism

In the Philippines, communities in the SMBC have for several years expressed interest in developing ecotourism activities. In the past year, CI's NGO partner PROCESS-Lu-



CI Cambodia works with farmers in the CCL to restore rice fields dormant due to years of civil unrest.

zon succeeded in securing funding from the United Nations Development Programme for the development of potential ecotourism sites in the project area. The Local Government Unit also allocated funding for this effort, as it intends to boost the development of these ecotourism sites to generate alternative livelihoods for the community. These natural attractions are expected to contribute to the local economy if developed and managed properly. The blue waters area, with its pristine caves, was the primary attraction at the National Caving Congress in April 2005. CI is actively participating in various local planning activities to ensure that



A gardening project conducted by a women's enterprise group in Chiapas, Mexico.



CI Madagascar helps provide alternatives to slash-and-burn agricultural practices.



Shirts in the marketplace in the Selva Lacandona.

the ecosystem of the area will not be compromised through ecotourism ventures.

## LESSONS LEARNED

Based on CI's experience in all of the PE programs so far, CI presents the following advice and lessons learned from the field.

- It is important to pursue and encourage an alternative livelihood that is relevant to the people of the area and that coincides completely with the environmental efforts of the integrated project. If an NGO attempts to start a livelihood activity that the people cannot relate to, it will be difficult to garner involvement. In Mexico, two women's groups ran embroidery microenterprises: not everyone knew how to embroider, but many did, and those who did not learned. This enterprise worked well because the practice was already established thanks to their location near a tourist area. The embroideries depicted local endangered animals, tying them directly to the conservation efforts and making the integrated project more effective.
- Community awareness and acceptance of the new livelihood activity is key if it will take time away from more traditional responsibilities. Women's group activities can be especially controversial, because women frequently are not accepted as income generators for the family, and they traditionally spend most of their hours taking care of their children and their households. Numerous information

and awareness workshops, as well as gender workshops, may be necessary to gain community acceptance for a project. Everyone must be included—men and women, children and adults.

- NGOs must be aware of major and minor cultural differences within and between groups and be observant, open, and flexible in this respect. These differences include cultural practices of the workplace as well as customs and ethnic differences.
- Every member of an alternative livelihood group must have an equal say in decisionmaking. If a group already exists when the NGO enters the scene, current leadership should be evaluated. In Mexico, the existing leadership of one of the women's groups presented a problem because the group members were being dominated and their opinions were disregarded. When this fact came to light, the result was a much more open and participatory group.



Commercial center in southern Mexico.

- In holding any workshops or information sessions for a livelihood group or the whole community, everyone must be actively involved in the meeting. A simple lecture will inform people but not excite them. If youth participation is needed, it is especially important to make meetings and workshops fun.
- Unplanned and unforeseen expenses should be anticipated when setting up and supporting an alternative livelihood project component. Be prepared to change plans should the necessity arise. For instance, if the livelihood activity is agricultural, natural disasters or even heavy rains can ruin an entire effort; if the activity relies on creating a market for goods, it is by nature risky.
- It takes lots of time to establish a successful alternative livelihood activity. In Mexico, one of the women's groups did not progress as far as the others simply because it was difficult for staff members to reach them and the staff members therefore had less time to work with them. Microenterprises and other livelihoods should eventually be self-sustaining, but it takes a lot of time to provide a community with the resources and support necessary to successfully establish a livelihood option.
- Verbal and nonverbal communication is key in any group activity, both between staff members and community members and among the participants. In Mexico, the communities spoke indigenous languages better than Spanish, and it was not until project staff members began to understand the people's nonverbal communication and learn some of the language that the project began to function smoothly.
- Children should be involved in the activities, so they become accustomed to different ways of making a living other than the traditional methods they usually witness. Women in Mexico bring their daughters to the group meetings, and in Madagascar, schools have set up demonstration gardens to teach students and their parents about sustainable farming.
- The links between a new livelihood method and a community's well-being should be made clear. In the case of a microenterprise, the connection is fairly obvious because the benefit is monetary. When promoting alternative agricultural methods for market foods and environmental



Local market in San Cristobal, Mexico.

preservation and nutrition, hold nutrition workshops and explain in detail the links between the environment and the health and well-being of the family. Remember that the project is integrated, and any chance to make links between components helps the whole effort.

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## PHOTO CREDITS

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CONSERVATION  
INTERNATIONAL

Conservation International  
1919 M Street, NW, Suite 600  
Washington, DC 20036

tel 202.912.1000  
fax 202.912.1030  
[www.conservation.org](http://www.conservation.org)

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